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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/763,882	01/23/2004	Taku Kodama	6453P029	6013

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EXAMINER	
LEE, JOHN W	

ART UNIT	PAPER NUMBER
2624	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/763,882	KODAMA ET AL.	
	Examiner	Art Unit	
	JOHN Wahnkyo LEE	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 February 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-41* is/are pending in the application.

4a) Of the above claim(s) *1-16* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *17-41* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *20080314 and 20080407*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 29 January 2008 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 21-22, 24, 29-30, 32, 37-38, and 40-41 are rejected under 35 U.S.C. 102(b) as being anticipated by Sato et al. (US 2001/0028748).

Regarding claim 21, Sato discloses an image processing apparatus (Fig. 1A-1C, 7, 17A, and 17D; abstract), comprising: a segmenting unit to segment an image into one or more regions of data from the image (Fig. 1B-2, 7-2, and 17A-2; paragraph [0170], “subbands” and “wavelet transform”); a generating unit to make the one or more regions segmented by the segmenting unit into components (paragraph [0171], “regions of a predetermined unit”); a converting unit to convert the respective components from a first data format to a second data format, where the first and second data formats are

different (Fig. 1B-3, 7-3, 17A-3; paragraphs [0218] and [0219], “quantization section”); an encoding unit to encode the components converted by the converting unit into code data using a same compression method (Fig. 1B-4, 7-4, 17A-4; paragraphs [0220]-[0225], “entropy encoding section” and “bit plane”); and a combining unit to combine the code data encoded by the encoded unit into a codestream (Fig. 1A-11, 3A-3E, 7-11, 17A-11; paragraphs [0220]-[0223], “code sequence construction section” and “code sequence”).

Regarding claim 22, Sato discloses the encoding unit divides the image into a plurality of tiles and hierarchically encodes the respective tiles into code data (paragraph [0004], “hierarchical encoding scheme”).

Regarding claim 24, Sato discloses an image processing apparatus as claimed in claim 21, further comprising: a storing unit to store the codestream combined by the combining unit (Fig. 7-10; paragraph [0261], “code sequence storage section”); a decoding unit to decode the codestream stored in the storing unit into an image (Figs. 1C and 7, “DEC”; claim 21); and an image forming unit to form the image decoded by the decoding unit (Figs. 7-8 and 7-12, “image construction section” and “image output section”).

Regarding claim 29, claim 29 is analogous and corresponds to claim 21. See rejection of claim 21 for further explanation.

Regarding claim 30, claim 30 is analogous and corresponds to claim 22. See rejection of claim 22 for further explanation.

Regarding claim 32, claim 32 is analogous and corresponds to claim 24. See rejection of claim 24 for further explanation.

Regarding claim 37, Sato discloses that the invention is implemented when the program codes read out from the storage medium having a CPU for the performing the functions (paragraph [0311]). Moreover, claim 37 is analogous and corresponds to claim 21. See rejection of claim 21 for further explanation.

Regarding claim 38, Sato discloses that the invention is implemented when the program codes read out from the storage medium having a CPU for the performing the functions (paragraph [0311]). Moreover, claim 38 is analogous and corresponds to claim 22. See rejection of claim 22 for further explanation.

Regarding claim 40, Sato discloses that the invention is implemented when the program codes read out from the storage medium having a CPU for the performing the functions (paragraph [0311]). Moreover, claim 40 is analogous and corresponds to claim 24. See rejection of claim 24 for further explanation.

Regarding claim 41, Sato discloses an image processing apparatus (Fig. 1A-1C, 7, 17A, and 17D; abstract), comprising: a segmenting unit to segment an image into one or more regions of data from the image (Fig. 1B-2, 7-2, and 17A-2; paragraph [0170], “subbands” and “wavelet transform”); a generating unit to make the one or more regions segmented by the segmenting unit into components (paragraph [0171], “regions of a predetermined unit”); an encoding unit to encode the components made by the generating unit into code data using an encoding method based on a component type of each of said components (Fig. 1B-4, 7-4, 17A-4; paragraphs [0220]-[0225], “entropy

encoding section" and "bit plane"); and a combining unit to combine the code data encoded by the encoding unit into a codestream (Fig. 1A-11, 3A-3E, 7-11, 17A-11; paragraphs [0220]-[0223], "code sequence construction section" and "code sequence").

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 17- 20, 23, 25-28, 31, 33-36, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al. (US 2001/0028748) in view of Navon et al. (US 7,085,422).

Regarding claim 17, Sato discloses an image processing apparatus (Fig. 1A-1C, 7, 17A, and 17D; abstract), comprising: a segmenting unit to segment an image into one or more regions of data from the image (Fig. 1B-2, 7-2, and 17A-2; paragraph [0170], "subbands" and "wavelet transform"); a generating unit to make the one or more regions segmented by the segmenting unit into components (paragraph [0171], "regions of a predetermined unit"); an encoding unit to encode the components converted by the converting unit into code data using a compression method (Fig. 1B-4, 7-4, 17A-4; paragraphs [0220]-[0225], "entropy encoding section" and "bit plane"); and a combining unit to combine the code data encoded by the encoded unit into a codestream (Fig. 1A-11, 3A-3E, 7-11, 17A-11; paragraphs [0220]-[0223], "code sequence construction

section" and "code sequence"). However, Sato does not disclose using different compression method. Instead of Sato, Navon discloses an invention compressing the foreground and the background separately, typically with the foreground stored with a higher quality compression method than the background (col. 3, lines 46-50). The foreground may be compressed with an almost non-lossy compression method, and the background may be compressed with a high lossy compression method (abstract; col. 3, lines 50-53).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Navon's invention in Sato's invention to provide an improved image separation and compression tool as suggested by Navon (col. 1, lines 34-35).

Regarding claim 18, Sato further discloses the encoding unit divides the image into a plurality of tiles and hierarchically encodes the respective tiles into code data (paragraph [0004], "hierarchical encoding scheme").

Regarding claim 19, Navon further discloses the segmenting unit segments the image into at least one of a text region, a drawing region, a photograph region, and a background region ("a method for image separation of an image as the foreground comprising text and graphics (col. 4, lines 22-23) and the background (abstract; col. 3, lines 32-45)").

Regarding claim 20, Sato further discloses an image processing apparatus as claimed in claim 21, further comprising: a storing unit to store the codestream combined by the combining unit (Fig. 7-10; paragraph [0261], "code sequence storage section"); a decoding unit to decode the codestream stored in the storing unit into an image (Figs.

1C and 7, "DEC"; claim 21); and an image forming unit to form the image decoded by the decoding unit (Figs. 7-8 and 7-12, "image construction section" and "image output section").

Regarding claim 23, Sato discloses all the previous claim limitations discussed in claim 21 except the one recited in claim 23. However, Navon discloses the segmenting unit segments the image into at least one of a text region, a drawing region, a photograph region, and a background region ("a method for image separation of an image as the foreground comprising text and graphics (col. 4, lines 22-23) and the background (abstract; col. 3, lines 32-45)").

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Navon's invention in Sato's invention to provide an improved image separation and compression tool as suggested by Navon (col. 1, lines 34-35).

Regarding claim 25, claim 25 is analogous and corresponds to claim 17. See rejection of claim 17 for further explanation.

Regarding claim 26, claim 26 is analogous and corresponds to claim 18. See rejection of claim 18 for further explanation.

Regarding claim 27, claim 27 is analogous and corresponds to claim 19. See rejection of claim 19 for further explanation.

Regarding claim 28, claim 28 is analogous and corresponds to claim 20. See rejection of claim 20 for further explanation.

Regarding claim 31, claim 31 is analogous and corresponds to claim 23. See rejection of claim 23 for further explanation.

Regarding claim 33, Sato discloses that the invention is implemented when the program codes read out from the storage medium having a CPU for the performing the functions (paragraph [0311]). Moreover, claim 33 is analogous and corresponds to claim 17. See rejection of claim 17 for further explanation.

Regarding claim 34, Sato discloses that the invention is implemented when the program codes read out from the storage medium having a CPU for the performing the functions (paragraph [0311]). Moreover, claim 34 is analogous and corresponds to claim 18. See rejection of claim 18 for further explanation.

Regarding claim 35, Sato discloses that the invention is implemented when the program codes read out from the storage medium having a CPU for the performing the functions (paragraph [0311]). Moreover, claim 35 is analogous and corresponds to claim 19. See rejection of claim 19 for further explanation.

Regarding claim 36, Sato discloses that the invention is implemented when the program codes read out from the storage medium having a CPU for the performing the functions (paragraph [0311]). Moreover, claim 36 is analogous and corresponds to claim 20. See rejection of claim 20 for further explanation.

Regarding claim 39, Sato discloses that the invention is implemented when the program codes read out from the storage medium having a CPU for the performing the functions (paragraph [0311]). Moreover, claim 39 is analogous and corresponds to claim 23. See rejection of claim 23 for further explanation.

Conclusion

6. No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN Wahnkyo LEE whose telephone number is (571)272-9554. The examiner can normally be reached on Monday - Friday (Alt.) 7:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jingge Wu can be reached on (571) 272-7429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John Wahnkyo Lee/
Examiner, Art Unit 2624
/Jingge Wu/
Supervisory Patent Examiner, Art Unit 2624